The road ahead



THE EXCITING STORY OF THE NATION'S 50 BILLION DOLLAR ROAD PROGRAM
THE GREATEST CONSTRUCTION JOB IN HISTORY

What the nation is building

HE road ahead is going to be smooth, safe and swift.

The nation has started building the greatest network of roads ever conceived by man. By 1972, there will exist some 50 billion dollars worth of roads, most of which are not on your road maps today.

This is the biggest building project in history

-60 times greater than the Panama Canal. It
also is the first time in American history that
our nation has promise of completing a planned
system of highways in a given number of
years.

When finished, the project will affect directly more Americans than anything our nation ever has built.

But if blueprints are going to become highways, you have a part to play. For the law that launched this mammoth project has provided that the voice of the public shall be heard as the program unfolds. Rarely has the individual been given such an important role in a public works project.

This booklet has been written to help you act wisely. In nontechnical terms, it explains provisions of the bill, details of construction, the history of road building in the United States, and the results you may expect.

Only our nation could have the vision for such a vast program. For only America has the need for it... and the resources to see it through to completion. And only America... unawed by bigness... could start such a program without a doubt of its success.

With the help of informed citizens like yourself, it will succeed.

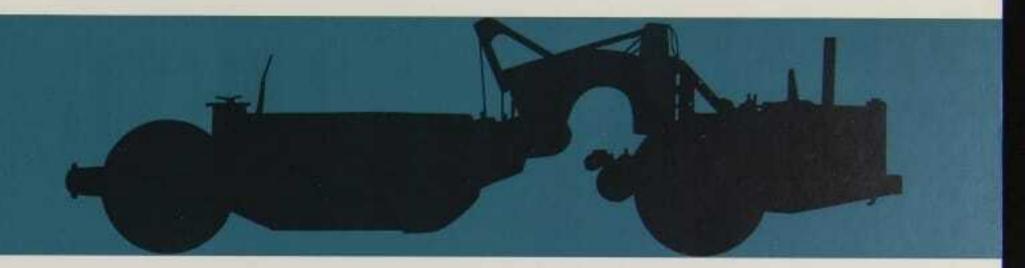
Whose idea was the

If you own a car . . . if you take an hour driving 12 miles to work . . . if you have spent an otherwise pleasant summer Sunday creeping through one bottleneck after another . . . if you have had a friend or relative killed or maimed in a traffic accident . . . you are one of the originators of this program.

Each year it had become more obvious that the United States—the most mobile nation on earth—was being strangled by poor roads. And the outlook was frightening. In 1956, there were 65 million vehicles on the road. By 1975, this figure is expected to be well over 90 mil-



for you



vast, new program?

lion. Unless something was done—and done immediately—you soon would be able to move just as quickly by horse and buggy—as, indeed, you can in some of our large cities today.

So it was the weight of public opinion, more than anything else, that was responsible for starting this gigantic program on June 29, 1956.

On that day the President signed into law the "Federal-Aid Highway Act of 1956," the deceptively undramatic title of the legislation which signaled the beginning of the greatest building project in history.

Who is going to build the roads?

Although this magnificent system of modern highways is authorized by a Federal act and will be paid for mainly by Federal money, the building will be the job of the 48 individual states.

In the United States, road building is traditionally the job of the states. There are no Federal highways in the United States, except those roads which are on Federal land. The U.S. Route signs you see along highways are merely for the convenience of travelers. Such roads were built as individual state roads and then linked together with a common U.S. Route number. The new roads will be a state responsibility except for those in national forests and parks. The states, working together, helped plan the routes. The states will make the surveys, plans and specifications. The states will let the contracts. The states will supervise construction and will be responsible for maintenance.

In all these functions, the states will have the expert help and guidance of the U.S. Bureau of Public Roads, the Federal agency which will coordinate this gigantic program.



What roads are going to be built?

The map on this page shows you the general location of 41,000 miles of two, four, six and eight-lane expressways which will crisscross our nation by 1971. This is called the *Interstate Highway System*, and is part of the program now underway.

But it is only one part of the program.

Billions of dollars also are going to be spent on roads in cities, farm-to-market roads, and other state highways. All of these roads, including the magnificent Interstate System, are Federal-Aid Roads.

Cities listed on the map are controls for the system. Other cities served by the Interstate System, but which do not appear on the map are:

Ashland, Ky.
Bay City, Mich.
Beaumont, Tex.
Bethlehem, Pa.
Binghamton, N.Y.
Bridgeport, Conn.
Bristol, Conn.
Fall River, Mass.
Flint, Mich.
Fort Smith, Ark.
Fresno, Calif.
Gadsden, Ala.

Holyoke, Mass.
Huntington, W. Va.
Jackson, Mich.
Joliet, III.
Kenosha, Wis.
Lawrence, Mass.
Lima, Ohio
Lorain, Ohio
Manchester, N. H.
New Britain, Conn.
North Little Rock, Ark.
Norwalk, Conn.

Peoria, III.
Pontiac, Mich.
Portsmouth, Va.
Racine, Wis.
Roanoke, Va.
Rock Island, III.
Rockford, III.
Saginaw, Mich.
St. Joseph, Mo.
St. Petersburg, Fla.
San Jose, Calif.
Schenectady, N. Y.

Springfield, Ohio Stamford, Conn. Stockton, Calif. Superior, Wis. Tacoma, Wash. Terre Haute, Ind. Troy, N.Y. Waco, Tex. Waterbury, Conn. Wilkes-Barre, Pa. York, Pa.





What are Federal-aid roads?

Building of roads in this country is a state function. But in 1916 the Federal government began to contribute money to states to help them build roads.

At first, this money could be spent on any road used to carry mail. But in 1921 use was restricted to a system of roads now known as the—

of main highways selected by the states for improvement with Federal assistance. Between the two World Wars, much of this vast system was built, largely as two-lane highways. The states were required to match the amount of money which they received from the Federal

government. And the money was granted to the states on the basis of their area, population and their mileage of rural mail routes.

In 1944, the Federal government provided substantial amounts of Federal money for two other types of roads—

SECONDARY SYSTEM. This is a system of farmto-market rural roads designated by the states and coordinated by the Bureau of Public Roads.

URBAN ROADS. For the first time Federal money was provided specifically for extension of Federal-aid roads into urban areas.

In 1944, Congress also asked the States and the Bureau of Public Roads to map out still another systemwould be a super-network of the most important 40,000 miles of the Primary System (now increased to 41,000 miles). It would connect more than 90% of all cities with a population of 50,000 or more (209 cities in all), 42 of the 48 state capitals, and all 48 states. Although this system amounts to only 1.2 per cent of the total rural mileage in the nation, it is expected to carry about 20 per cent of the traffic on all streets and highways. These figures give some idea of the importance of the Interstate System to our economy as well as our national defense.

Today, there are some 755,278 miles of roads eligible for Federal grants. They are the Federalaid roads of the United States.

How much money is going to be spent?

In 16 years, the Federal government will spend about 27.3 billion dollars building Federal-aid roads. And it probably will make additional appropriations of 8.7 billion dollars in that time. The total thus will be near 36 billion dollars—five times more than it spent during

the preceding 40 years.

At the same time, the states will spend nearly 13 billion. Including expenditures in Federal lands, the states and the Federal government will spend more than 50 billion dollars building Federal-aid roads in 16 years.

ESTIMATE OF WHAT \$50 BILLION WILL BUILD

\$15 billion

FOR CITY FREEWAYS AND "BELT ROUTES"

\$12.3 billion

FOR INTER-CITY SUPERHIGHWAYS

\$10 billion

FOR STATE HIGHWAYS

\$6.7 billion

FOR FARM-TO-MARKET ROADS

\$5.6 billion

FOR EXTENSION OF STATE HIGHWAYS INTO AND THROUGH CITIES

What is the money going to build?

More than half the money will be spent on 41,000 miles of Interstate Highway System. The Federal government will spend 24.8 billion dollars on this system and the states—required to put up only 10 per cent of the cost—will contribute 2.6 billion. Therefore a total of 27.4 billion dollars will be spent on the Inter-

state System.

Most of the remainder will build other parts of the Primary System, Secondary System and city roads. As usual, states will match the Federal money for this construction.

Improvements will also be made in national forests and national parks.



How much will each State receive?

There is a new basis for dividing the money for the construction of the Interstate Highway System. For the first three years, the money will be apportioned two-thirds on population, one sixth on area and one sixth on the mileage of rural post roads. For the final 10 years, the money will be apportioned to states by the estimated cost of completing the Interstate System in each state.

Money for the construction of Federal-aid highways other than the Interstate Highway System will be divided on the old basis, one third on population, one third on area, one third on rural post road mileage.

Here's how much money it is estimated each state will receive from the federal government for Federalaid highway construction during the next 13 years.

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KENTUCKY	\$666,900,000
LOUISIANA	\$588,500,000
MAINE	\$284,400,000
MARYLAND	\$418,700,000
MASSACHUSETTS	
MICHIGAN	
MINNESOTA	
MISSISSIPPI	
MISSOURI	
MONTANA	\$539,000,000
NEBRASKA	\$544,100,000
NEVADA	
NEW HAMPSHIRE	
NEW JERSEY	



Facts and figures most often misunderstood

INTERSTATE SYSTEM

\$24.8 billion—This figure refers to the amount of Federal money authorized through 1969 to build the Interstate System only. It represents 90% of the cost.

\$27.4 billion—This is the total of both Federal and State money to be spent on the Interstate System. States contribute 10% of the cost.

OTHER FEDERAL-AID ROADS

\$2.5 billion—This is the amount of Federal money authorized for all other Federal-aid roads for 1957 to 1959. States will match this total.

TOTALS FOR ALL FEDERAL-AID ROADS

\$27.3 billion-This is the total Federal money

authorized for the Interstate System through 1969
—and for all other Federal-aid roads through 1959.

\$32.5 billion—This is the total Federal and State money to be spent on the Interstate System through 1969—and for all other Federal aid roads through 1959.

PROJECTED TOTALS

\$8.7 billion—It is anticipated that Congress will appropriate at least this amount for Federal-aid roads (other than the Interstate System) from 1959 to 1969. States will match this money.

\$36 billion—If the above figure is appropriated, this will be the total Federal appropriation for both the Interstate System and other Federal-aid roads from 1957 to 1969. \$50 billion—If the \$8.7 billion is appropriated, this is the grand total of state and Federal money to be spent on all Federal-aid roads through 1969.

OTHER FIGURES

\$101 billion—In 1954, states estimated it would cost this much to bring all roads and streets to "tolerable standards" and to complete the Interstate System—over a 10-year period. This figure has no meaning in the present program, although you often see it mentioned.

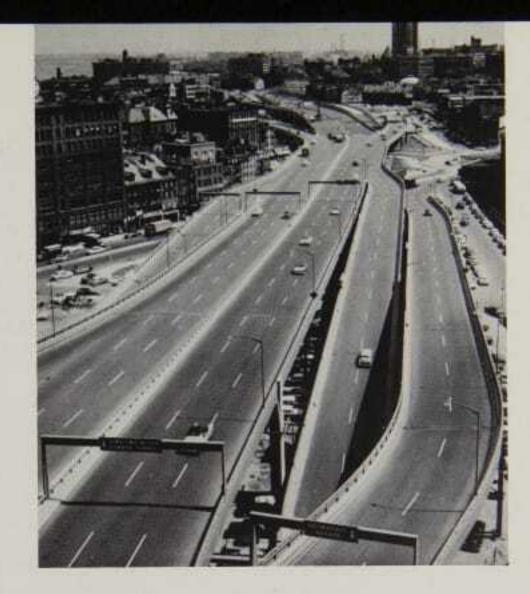
13 years—Federal authorization for building the Interstate System was made for the 13 years between 1957 and 1969.

16 years—This is the amount of time it is expected will be required to build the Interstate Highway System. It should be completed about 1971.

NEW MEXICO\$450,700,000
NEW YORK\$2,469,500,000
NORTH CAROLINA\$903,500,000
NORTH DAKOTA\$406,900,000
OHIO\$1,509,300,000
OKLAHOMA\$661,200,000
OREGON\$507,900,000
PENNSYLVANIA\$1,865,800,000
RHODE ISLAND\$216,400,000
SOUTH CAROLINA\$476,900,000
SOUTH DAKOTA\$427,700,000

TENNESSEE	\$766,800,000
TEXAS	\$2,112,500,000
UTAH	\$351,900,000
VERMONT	\$201,200,000
VIRGINIA	\$718,400,000
WASHINGTON	\$582,000,000
WEST VIRGINIA	\$418,200,000
WISCONSIN	\$822,600,000
WYOMING	\$369,900,000
DISTRICT OF COLUMBIA	\$220,900,000

What will the Interstate system roads look like?



These roads will be built to the most modern engineering standards known. They are being designed to handle the anticipated traffic of 1975. And, of course, there will be no tolls.

You will be able to travel from coast to coast, from border to border without a traffic light. For state and Federal highway officials have decided to build every mile of this system on the controlled access principle.

Controlled access means there will be no cross roads or intersections on the road. There will be no railroad grade crossings. But more than that, it means there will be no driveways from homes or business establishments leading to the Interstate Road. Because of controlled access you will be safer . . . drive at higher average speeds . . . and will not be paying for a road that gets obsolete almost as soon as it is built.

You will get on and off the Interstate System on specially designed access roads which will help you merge with through traffic safely and swiftly.

These access roads will not be as far apart as they usually are on toll turnpikes. They will be placed wherever the need is great enough. Each state will indicate, when submitting its plans for Interstate Highway construction, the points at which they propose access roads.

After plans are approved, states are forbidden by law to add other access points without approval of the Bureau of Public Roads.

Most of the Interstate System will be multiple lane divided highways—either four, six or eight lanes depending on anticipated traffic. Only about 7,000 lightly-traveled miles will be two lanes. The two-lane portions will be designed to allow for the addition of divided lanes as traffic increases.

Traffic lanes will be at least 12 feet wide, and shoulders at least 10 feet wide. The center strip dividing the lanes will be 36 feet wide in rural areas.













What will be the speed on the Interstate system?

Speed limits, of course, are up to the state. But, to provide a margin of safety, the roads are being designed for speeds of 70 miles on flat land, 60 miles for rolling country, and 50 miles in mountainous terrain and urban areas. You will be able to average 55 miles an hour.

Does controlled access mean there will be no gas stations?

The law forbids service stations and other commercial businesses on the right-of-way.

But don't worry, there will be plenty of

places to turn off for gas, food, lodging and other services.

A system of signs, which will inform you when you are approaching areas where such services are available, is being worked out. In many cases, you will simply be able to turn off into a nearby town or city. Out in rural areas, commercial services probably will be grouped around access points in the manner that the businesses themselves elect.

One of the main reasons the Interstate System is being built in this manner is to save your life. Controlled access roads are much safer than roads with intersections at grade and driveways. The accident rate on controlled access roads is one-third of that on other roads. It is estimated that the Interstate System will save 4,000 lives a year!

In addition, controlled access protects your tax money. New roads always attract new commercial businesses and homes. More driveways and cross roads are added. Soon the road becomes such a bottleneck that it cannot handle the traffic for which it was built. New roads must be built. Thus, controlled access stops a road from growing old before its time.

You have an important part to play!

The new law requires that public hearings must be held in every city, town and village that will either be by-passed or passed through by Federal-aid roads. When your state submits its plans to the Bureau of Public Roads, it must attest that it has held such hearings for every community affected and reached its decisions on the routes after considering the evidence of such hearings. That means there will be literally thousands of such hearings. You may be called upon to attend one or more.

Many of those attending will not understand the advantages of "controlled access." Others will think if a town is "by-passed" business will be affected adversely. According to the U.S. Chamber of Commerce and many studies of by-passes this is not true. As a matter of fact, business usually increases. The "by-pass" relieves traffic congestion in the community and permits merchants' steady customers to drive to their stores easily, find a parking space and shop. Through traffic brings few customers. But it does discourage regular, local customers.

It is important that you should be able to explain these things to those who are not as well-informed.

How fast can your state get the program going?

A good deal depends on the laws of your state. Many states have passed legislation which permits them to move quickly . . . to start building roads almost immediately. Some states will have to revise their laws in order to avoid delay in taking advantage of the money now offered them by the Federal government.

For instance, some states are not permitted to acquire land and then control access to a highway built upon it. The new Federal law offers them help. A state, under certain conditions, can request the U.S. Secretary of Commerce to acquire rights-of-way for the Interstate System. The Federal government will do this, and hold title to the land until the state has laws which permit it to control access. Then the Federal government will turn the land back to the state.

Some states, too, have established a system whereby they can acquire land for roads well in advance of the construction date. This helps in many ways. For one thing, the state can often acquire the land before it is developed. That helps keep to a minimum the number of people who will be affected later on. And, of course, buying the road property in advance helps

prevent the payment of inflated real estate prices.

To acquire land in advance and save money and trouble, some states have a special revolving fund. The state buys the land from this fund in advance. When the road is built the money is returned to the fund from the money authorized for the project.

The Federal government will help states building Interstate Highways to establish a procedure for advanced purchase of land for highways. It will advance Federal funds for this purpose to states if the state agrees to begin construction within five years.



What is going to happen to toll roads?

Since States can build Interstate Highways
—which are every bit as efficient as toll roads
—by putting up only 10% of the cost, the use
of tolls as a method of financing highways is

expected to be greatly reduced.

And, of course, none of the new Federal-Aid roads will be toll roads. Federal money cannot be used for toll highways.

Will there be any toll roads on the Interstate system?

Over 2,000 miles of toll roads in 15 states are included in the Interstate System. For the present they will continue as toll roads. The law provides that they may be accepted as links in the Interstate System on two conditions.

The first is that the toll roads will ultimately become free roads when the bonds are paid off. The second is that there is a satisfactory free alternate route.

Congress must determine whether or not to reimburse states for the toll roads included in the Interstate System to permit them to become tollfree. A study is being made of the problem.

How many miles of Interstate highways existed when the law was passed?

It is estimated that about 6,000 miles of toll and free highways that conform to Interstate standards and are on Interstate routes were in existence when the law was passed. It must be understood that the Interstate Highway System was laid out to serve traffic on existing travel routes. In other words, there are roads at present approximating practically every mile of those routes. But they are mostly inadequate roads—certainly not up to handling 1975 traffic.

Will old roads be widened or new roads be built?

This is a question each state will study for each project it undertakes. Often it is cheaper, particularly in heavily populated areas, to relocate highways rather than acquire a good deal more property along the old route for controlled access.

It appears certain that two-thirds of the new
Freeways will be new roads often paralleling the
old routes.



Where will the money come from?

About two-thirds of the needed Federal money will come from highway taxes already in effect before the Act was passed. One-third will come from new taxes and increases in rates made effective with the passage of the Act.

This act increased the Federal gasoline tax by

one cent per gallon; tires from five to eight cents a pound. There is a new tax of three cents a pound on camel-back recapping rubber. The tax on trucks and trailers and buses has been increased from 8% to 10% and a use tax has been levied on all trucks weighing more than 26,000 pounds.



How much will this program cost the average motorist?

Here is the biggest bargain a motorist ever got. According to the Bureau of Public Roads, you will get these 41,000 miles of high speed expressways and thousands of miles of other roads for less than \$9 a year additional.

These freeways will cut your traveling costs an estimated one cent a mile by slower depreciation of your car, lower insurance losses, saving of time. And how can you put a value on the 4,000 lives a year that are expected to be saved?

Will the states have to appropriate more money for highways?

States have to put up only 10% of the cost of the Interstate System, and 50% of the cost of projects on the remainder of the Federal-aid road system.

However, for most states this means that the total annual expenditure for highways will be higher. They will need to appropriate more money for highways-but not a great deal.

The important thing to remember is that under the present program each state dollar will buy a good deal more highway construction than in the past.

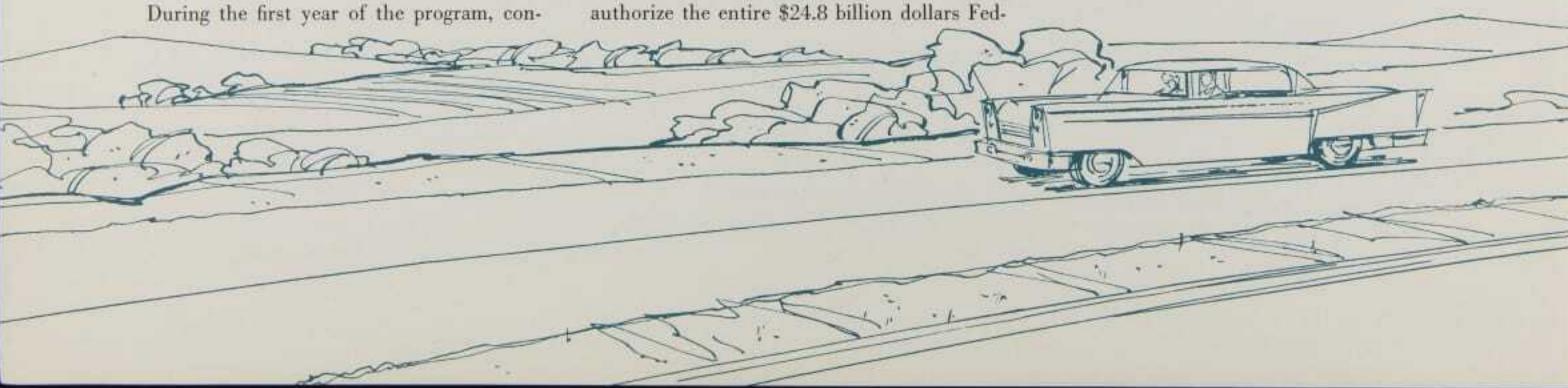
When will you start seeing results?

Construction on the first new roads on the Interstate Highway System began a few weeks after the law was passed. Results will begin to be evident about 1960, but they will be well scattered throughout the 48 states.

tracts were awarded for building 1,532 miles of the Interstate System and 24,000 miles of the primary and farm-to-market systems. Well over \$2 billion were committed.

It is well to remember that Congress did not

eral-aid for the Interstate System in a lump sum. Rather it was doled out over 13 years. So some projects on this system will not be started until about 1970. But by that time tens of thousands of miles will be completed.



How long will the Interstate system take to build?

Despite its enormity...in the face of the many problems to overcome...the Interstate Highway System is expected to be completed in only 16 years.

To understand what an astounding feat of construction this is, compare it with the building of the Panama Canal. The Interstate Highway System is about 60 times as big a construction job as the canal, yet it will be built in the same length of time.

This is a testimonial to the nation's road builders and to their giant earthmoving equipment with its greatly increased capacity.

America has handed this tremendous job to

them with complete confidence. It will take coordination, cooperation and the combined experience of contractors, engineers, Federal and state road officials, bankers, material producers and equipment manufacturers and dealers to pull it off. But there seems to be little doubt that they will succeed.





Are there enough men and equipment to do this big job?

Careful surveys indicate that there are both enough men and machines to carry through the greatest construction job in history. This is due in large part to the greater capacity and efficiency of road building equipment.

For instance in 1948, 116,000 men were needed for each one billion dollars worth of road building. Today, employing modern earthmoving equipment developed in the past eight years, this same manpower force can build approximately one and threequarter billion dollars worth of road in the same length of time.

The only shortage of men is among trained highway engineers. This shortage is being attacked from two sides.

First, greater use of aerial surveys in laying out routes and greater use of electronic machines for computations will cut down the manpower needed for these jobs. Using the most modern methods some jobs will take only about 3 per cent as much manhour effort as they did formerly.

Secondly, some states are attracting engineers by raising pay scales to the level offered by industry. This also has the effect of attracting students to engineering courses.





What will the new Interstate highway system mean to you?

- 1. For the first time in 25 years you will have a highway system matched to the capacity of your modern automobile. For the first time, you will get full benefit from the large investment you have in your family car.
- 2. When you and your family go for a drive on the Interstate System your chances of being in an accident will drop by two-thirds.
- 3. You may be one of the 4.000 people who will not die in an auto accident each year after the Interstate System is completed.

- 4. Insurance losses will drop.
- 5. You will save a cent a mile over present costs of traveling by car.
- 6. You will save many, many hours on the road. You will be able to average 55 miles an hour, compared to 35 miles an hour on present old roads.
- 7. You will be able to drive to most of the large cities in the nation from near your home without seeing a traffic light.

What can you do to help the Interstate highway program?

If there is a public hearing held near you, attend it. Help fight for controlled access roads to save lives and money.

If your state legislators are considering laws to help speed the road building program in your state, let them know you are behind them. Rally your friends and the organizations to which you belong in support of such legislation.

If your state needs additional money to contribute to the road program, support it. Remember this is one of the lowest costs of driving.

Your state dollar will buy more modern highway under the new program than it ever bought before.

This is the greatest construction job in history—and your greatest bargain.

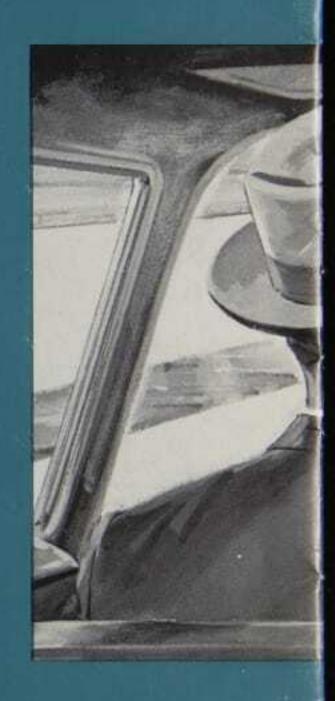


This booklet was produced as a public service by Caterpillar Tractor Co., Peoria, Illinois, in the belief that the most important ingredient in any American public works project is the support of informed citizens.



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Holyoke, Mass. Huntington, W. Va. Jackson, Mich. Joliet, III. Kenosha, Wis. Lawrence, Mass. Lima, Ohio Lorain, Ohio Manchester, N.H. New Britain, Conn. North Little Rock, Ark. Norwalk, Conn.

Peoria, III. Pontiac, Mich. Portsmouth, Va. Racine, Wis. Roanoke, Va. Rock Island, III. Rockford, III. Saginaw, Mich. St. Joseph, Mo. St. Petersburg, Fla. San Jose, Calif. Schenectady, N.Y.

Springfield, Ohio Stamford, Conn. Stockton, Calif. Superior, Wis. Tacoma, Wash. Terre Haute, Ind. Troy, N.Y. Waco, Tex. Waterbury, Conn. Wilkes-Barre, Pa. York, Pa.

